

PATENT ABSTRACTS OF JAPAN

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(54) COMPUTER NETWORK SYSTEM

(57)Abstract:

PURPOSE: To provide a user with the usability and speediness of computer network environment use by making the user log on a host computer and acquire the user's terminal environment setting data file and further data files of documents, images, speeches etc.

CONSTITUTION: The user uses an IC card 4 that the user carries with him as a means for accessing a desired computer and individual ID information and an individual password for accessing a specific computer such as the host computer 5 and the user's terminal 2 information on the accessed computer a logon program etc. are stored on the IC card 4; and a data reader for reading the data out of the IC card 4 is attached to each computer terminal 2 so that the computer terminal 2 recognizes the individual information, host information and logon program.

CLAIMS

[Claim(s)]

[Claim 1] Personal ID information a personal password which were provided with the following and made to build in said portable electronic parts By host information and a logon program to access a host computer. Or access a computer of a request of a user's own computer terminal automatically. A computer network system which connects two or more computer terminals characterized by things or a host computer which serves as a file server in addition to two or more computer terminals by a cable or radio. Portable electronic parts which contained personal ID information for a user to access specific computers such as a user's host computer or own terminal a personal password host identification information to access logon program etc.

A computer terminal which was attached in a data reader for reading said personal ID

information which were built in said portable electronic parts.

A computer network which connects said computer terminals or a host computer added to this by a cable or radio.

[Claim 2]The computer network system according to claim 1 with which portable electronic parts are characterized by what data leaders are an antenna and a control board for communication by a remoteness type IC card.

[Claim 3]The computer network system according to claim 1 with which portable electronic parts are characterized by what a data leader is a card reader corresponding to this with a contact smart card.

[Claim 4]The computer network system according to claim 1 with which portable electronic parts are characterized by what a data leader is a card reader corresponding to this with noncontact IC cardssuch as inductive coupling and capacitive coupling.

[Claim 5]The computer network system according to claim 1 characterized by what a data reader is a tag reader corresponding to this by an IC tag in which portable electronic parts have shape other than a card.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application]

[0002]This invention relates to the computer network system which combined in the network between the computer terminals which have an operating system of the same kind.

[Description of the Prior Art]With progress of computer network art from each terminal including a personal computer and a workstation. It is possible to access host machinessuch as other terminalsa workstationor a mainframe computeror a file server machineto refer to it to an individual data fileor to edit.

[0003]When a user accesses a host machine from each terminalBy connecting with a host machine via a network by the communications program which each terminal holdsand throwing in an ID code and a password by a manual entrya storage area peculiar to the user in a host or the exhibited field is accessedand this is used.

[0004]

[Problem(s) to be Solved by the Invention]Under the present circumstancesin order for logon and various kinds of file operations to perform this with the operation method of a host machinein addition to the operation method of the self terminal to holdeach user also needs to master the operation method of a host machine.

[0005]Although some some communications programs are provided with the function which makes automatic logon to a host machine possiblein order to make this automatic logon possible from terminals other than a self terminalIt is required to always record the automatic logon program file of self on storagessuch as a floppy disketteand to walk around with it.

[0006]When a user logs on to a host machine simple and acquires data filessuch as documentsa pictureand a soundin addition to the terminal configuration data file of selfor

thisan object of this invention is to realize the convenience of computer network use of a userand rapidity.

[0007]

[Means for Solving the Problem]An IC card which the user itself carries as a means for a user to access a desired computer in order that this invention may solve said technical problemUsing portable electronic partssuch as an IC tagto said portable electronic parts Or a host computerOr personal ID information for accessing specific computerssuch as a user's own terminalIn order that a personal passwordhost information to accessa logon programetc. may be built in and each computer terminal may recognize said personal informationhost informationand a logon programIt is attached to each computer terminal in a data leader for reading data in said portable electronic parts.

[0008]

[Function]According to claims 1 thru/or 5 of this inventioneach computer terminal which a user accessesThe personal ID information accumulated into portable electronic partssuch as the above-mentioned IC cardIt logs on to a host machine according to the contents set to a personal passwordthe host information to accessa logon programetc.Or the configuration file which downloads user data or the user is using every day is downloaded automaticallyand terminal environment peculiar to a user is realized automatically.

[0009]

[Example]Hereafterone example of this invention is described using drawing 1 and drawing 2.

[0010]It is that drawing 1 shows the example of composition of this systemand drawing 2 indicates the data structure mimetic diagram of a large capacity external storage to beOne in a figure an antenna and 2 a computer terminal (a terminal is called below) and 3 A network cableAs for a large capacity external storage and 7a remoteness type IC card (an IC card is called below) and 5 are [a user configuration file field and 9] the control boards for communication a user data file field and 8 a host computer (a host is called below) and 6 4.

[0011]The patch array antennas by which the antenna 1 is constituted from two or more flat-surface type patch antennas are used. The antenna 1 for communicating by IC card 4 and radio is attached to each terminal 2.

The control board 9 for communication for furthermore performing the data communications by IC card 4 and radio via the antenna 1 is built inandtherebya data leader is constituted.

Each terminal 2 which is not performing the specific task has started the program which confirms whether it entered in the cover area of the antenna 1 with which IC card 4 which a user always carries is attached to the terminal 2.

When IC card 4 enters in the cover area of the antenna 1the terminal 2 recognizes that IC card 4 entered in areaand starts radio with IC card 4.

[0012]Said IC card 4 The circuit for flat-surface type patch antenna communication for radioIt comprises a sized cell RAM which has memorized the 8-bit CPU [for communications control]said user codehost identification codeand access level flag sideand card side communications program etc.and for circuit operation and memory backupetc. The user ID code for host informationincluding a host's identification number

etc. to access automatic logon the password the flag in which an access level is shown etc. are stored in the memory in IC card 4. In this example automatic logon is specified as a flag in which an access level is shown.

[0013] The data communications by the amplitude modulation in a microwave (2.45 GHz) belt are performed between IC card 4 which builds in a flat-surface type patch antenna and the antenna 1 which comprises two or more same flat-surface type patch antennas. The above-mentioned host identification number user ID code and password which were beforehand accumulated into IC card 4 are transmitted to the terminal 2 via an antenna by this communication. An end of transmission of said information from IC card 4 to the terminal 2 will receive and pass said information to the communications program between a terminal/host. By the communications program between a terminal/host the terminal 2 transmits an ID code and a password to the host 5 specified with the host identification number and completes the automatic logon to the host 5. The operation not more than this becomes being the same as that of the procedure of the usual network use.

[0014] This example showed the example which only logs on to the host 5 automatically using the antenna and controller attached to remoteness type IC card 4 and each terminal 2. When downloading a data file peculiar to a user or a configuration file peculiar to a user from the host 5 it is possible to download automatically the above-mentioned file beforehand accumulated in the large capacity external storage 6 by which direct continuation was carried out to the host 5 to the terminal 2.

[0015] The data structure mimetic diagram of a large capacity external storage is shown in drawing 2. Two user areas the user data file field 7 and the user configuration file field 8 exist in the inside of the mass storage device 6 shown by this example. The data area for two or more users of a user (A)(B)(C) etc. etc. is made inside in each user area. When transmitting only a data file to the terminal 2 from the host 5 for a user and transmission is completed it is in ** that the user can edit the file transmitted from the terminal 2. On the other hand when a user's configuration file is transmitted it is specified by an automatic logon program that the terminal 2 reconstructs an operating system based on the configuration file. In these procedure of a series of the terminal 2 which a user is going to use becomes possible [operating terminals other than a self terminal by a user individual's desktop environment].

[0016] Although the antenna 1 attached to remoteness type IC card 4 and the terminal 2 was used as a means to detect user access to the terminal 2 in this example the noncontact IC card according to a contact smart card or inductive coupling and capacitive coupling instead of this means or the card reader respectively corresponding to the portable electronic parts and these which can build in personal information with shape other than a card like an IC tag the effect is the same even if it uses a tag reader although the user ID code the password and the host identification number were beforehand accumulated into IC card 4 and access to the host 5 was performed in this example again. The same effect is acquired even if the automatic logon program to the host 5 the configuration file of the terminal 2 etc. are made to build in IC card 4 inside and it uses this according to the storage capacity of IC card 4.

[0017] Although this example showed the example in case a user accesses from the arbitrary terminals 2 to the host 5 who specified beforehand the same effect is acquired even if the host 5 is transposed to a user's own terminal and it constitutes a

system.

[0018] Although this example showed the case where between terminals or between a terminal/host were a network of a cable the effect is the same even if it accesses by an IC card to the network connected by wireless LAN.

[0019]

[Effect of the Invention] As explained above according to claims 1 thru/or 5 of this invention a cellular phone can make portable electronic parts such as an easy IC card and an IC tag able to execute the logon procedure to a complicated host by proxy and the simple nature of computer network use and rapidity can be realized.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] The lineblock diagram of the system in which one example of this invention is shown

[Drawing 2] The data structure mimetic diagram of a large capacity external storage

[Description of Notations]

1 -- The antenna for remoteness type IC cards
2 -- A computer terminal
3 -- Network cable
4 [-- Terminal secret communication trust board.] -- A remoteness type IC card
5 -- A host computer
6 -- A large capacity external storage
a user's data file field stored in 7--
6a user's configuration file field stored in 8--69
